UTAH DIVISION OF WATER QUALITY
195 North 1950 West
PO Box 144870
Salt Lake City, Utah 84114-4870

Willard Bay Project Proposal Form

Applicant Name: Logan City
Co-Applicant Name(s) (if applicable):
Project Title: Logan River Comprehensive Plan and Phase 1 River Restoration
Agency or Business Name (if applicable): City of Logan
Mailing Address: 290 North 100 West, Logan, UT 84321
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☐Individual ☐Non-Profit ×Govt. Agency ☐Academic ☐Commercial ☐Other

1. Estimated Project Costs:

Construction Contract (Engineers Estimates): $575,000.00
Miscellaneous: $400,000 (Design Fees, Construction, Data Collection, Monitoring)
TOTAL: $975,000.00

Other sources of project funding:

Logan City 2015 Budget	$400,000.00	Logan City 2016 Budget	$100,000.00
Source	**Amount**	**Source**	**Amount**
Logan City 2017 Budget	$100,000.00	Logan City 2018 Budget	$100,000.00
Source	**Amount**	**Source**	**Amount**

Total project cost including other sources of funding: $ 1,675,000.00

2. Describe the purpose and need of the project:

The Logan River has been altered with development, dumping, and mixed uses over the last 150 years. River encroachment, channelization by dredging, and the use of concrete rubble and debris have changed the ecological functionality of the Logan River. Additional social impacts have included the change of the functional use of the river to primarily a water conveyance channel and storm water discharge channel over the last 100 years. This project is intended to help restore the ecological benefits of the Logan River.

The funding for this project is requested to help accomplish four things under the guidance of the Logan River Task Force:

1) Assist in the organization of the Logan River Task Force. The proposed Task Force will consist of experts from the Utah Division of Wildlife Resources and Utah State University. The individual members that have been invited to join the Task Force at this time have been included in Section 11. Other members from the Division of Water Quality, Division of Water Rights, and the Blacksmith Fork Soil Conservation District will also sit on the Task Force as it mobilizes in June, 2014. The Task Force will help develop and guide the City in helping restore much of the ecological balance of the Logan River within Logan City.
2) Under the guidance of the Task Force, prepare a comprehensive watershed-scale ecological restoration plan for the mainstem Logan River within Logan City Downstream to the confluence with the Little Bear River to maximize its habitat values, ecological function, social benefits, and to protect the river from further development encroachment. This plan will be prepared under the Logan River Task Force and will become the guiding document for long term stream restoration, ecological enhancement, water quality improvement, development code modification and improvement, and better planning.
3) Start restoring native vegetation along the Logan River. While Logan City has started replanting with red ozier dogwoods and coyote willows, additional tree, shrub, and grass plantings are still needed. Logan City has developed a draft revegetation plan that will be more fully revisited with the task force. This document will become part of Logan City's standards and specifications to assist in further ecological restoration and water quality stabilization efforts along the River.
4) To help restore the area between 600 West (Park Avenue) and 1000 West (SR-252). The soils in this area are highly erosive and thousands of tons of soil (well over 3,500 calculated in just the open field) were washed downstream including the loss of most the ecological benefits. Restoration of this section will include aquatic, terrestrial, and riparian habitat, water quality enhancements, and public access.

3. Estimated time frame of the project with significant milestones (Note: Project must be completed with final reports filed by January 1, 2018):

The following bulleted timeline summarizes the expectations for the project:

- June2014: Form Task Force (consisting of those listed in Section 11) and define scope and priorities of the team for the next 5 years.
- June 2014 to June 2017: Where necessary continue revegetation with native species of areas historically disturbed (See attached revegetation plan in the Appendix)
- June 2014-September 2014: Review existing data including geomorphology reports, hydrology reports, hydraulic models, sediment transport models, etc. This information will ensure that all Task Force members are having all of the available data for starting and moving forward. Where necessary, develop new models and collect new information to help guide future restoration design efforts.
- July 2015 to September 2017: In-stream and riparian restoration of sections between Golf Course Road and 1000 West during low flow periods. Estimated Length 8,680 Feet. Additional funding will be necessary and will be sought as the plans become detailed.

4. Describe the location of the project with attached location map, including details on the total area that will be directly enhanced by the project:

The proposed project will include three phases which will impact several large scale areas. The impacts expected are summarized. However, this early in the process, it is very difficult to quantify the full scale of the impacts.

1) The restoration plan will impact the full estimated 12.6 miles of the Logan River from First Dam all of the way downstream to the confluence with the Little Bear River. The impacts will consist of a restoration plan development and implementation, modifications to planning and development codes, and increased cooperation with federal, state, and local agencies to protect and enhance the ecosystem.
2) The revegetation plan is expected to help enhance approximately 1.6 miles of river bank from US-89/91 downstream to about ½ mile west of 1000 west on both the Blacksmith Fork River and the Logan River as shown on the map (Green Line).
3) The restoration project between Golf Course Road and 1000 west will help restore the aquatic, terrestrial, and riparian habitat to approximately 16.25 acres of river and springs as shown on the map (Red Polygon).

5. Describe how the project will specifically enhance and protect waterways affected by the Willard Bay diesel release and improve the conditions of one or more of the following: wildlife, habitat, natural vegetation, water quality or emergency response:

This project will not enhance waters directly affected by the Willard Bay diesel release, but will provide enhancements to nearby aquatic and terrestrial habitats similar to those that were directly affected by the diesel release, including lotic, riparian and wetland habitats, which are three of the highest priority habitat types for restoration in Utah, according to the Utah Wildlife Action Plan.

6. Describe project's connectivity to other natural areas or projects that further enhance wildlife, habitat, natural vegetation, water quality or emergency response:

Based on the goals and objectives discussed in section 2, the connectivity of each portion of this project is as follows:

1) The long term comprehensive plan will allow us to develop, by capitalizing on expertise of the Task Force, a restoration and rehabilitation plan for the Logan River (over 12.6 miles of river) from First Dam to the Confluence with the Little Bear River including riparian restoration, creation of buffer strips to move cattle back from the river, restoration of native plant species, increased public access and recreational use, and protecting the river corridor from future development encroachment.
2) Revegetation efforts will begin to help restore native vegetation along approximately 1.6 miles of river bank. Implementation over the next 3 years of regular annual plantings, in cooperation with the Task Force and the Black Smith Fork Soil Conservation District will allow us to establish stands of native cottonwood, box elder, choke cherry, current, river and water birch, dogwood, coyote willow, and wild rose. Other species and further guidance will be provided by the Task Force. This diversity will help provide wildlife habitat expansion with a broader ecosystem. The incorporation of native grasses into the revegetation will also help reduce the erosion potential and create natural buffers from organic and inorganic contamination.
3) Restoration of the section between 600 West and 1000 West will provide direct connection between the Golf Course area along the Logan River (highly populated with both whitefish and brown trout) and the area west of 1000 West. Additionally, a publicly accessible fishery (via a trail system) will be available for nearly 2.6 miles, approximately 1.6 miles more than at present.

7. Describe any additional social benefits of implementing this project:

Aside from the increase public fishing access, birding, and ecological enhancements, Logan City has also established a trail network plan. This plan includes the installation of both improved and unimproved trails and blue (water) trails connecting the parks and recreation areas along the Logan River. This project will help improve the connectivity and allow for public access.

The increased diversity of plants along the river will also broaden wildlife viewing opportunities.

8. Project plans and details, including rights to work on specified piece of land:

Logan City, prior to submitting this request for grant funding, has started organizing a Logan River Task Force. This Task Force will bring people with a wide variety of backgrounds and expertise together to develop a river system wide approach from First Dam at the Mouth of Logan Canyon all of the Way to the discharge the Little Bear in the Cutler Marsh (approximately 12.6 miles). This reach of the Logan River begins as a low sinuosity medium-to-high gradient stream dominated by small boulders and large cobble that runs through a very confined urban environment and then transitions into a higher sinuosity, lower gradient stream channel that flows through predominantly agricultural land before its terminus into Cutler Marsh. As a result of the environmental, social, and infrastructure constraints, a long-term, large-scale plan is needed to govern future Logan River restoration. The estimated budget to develop this plan is $400,000.00.

There are some critical sections that will require work sooner than the complete plan will allow, particularly the section between Park Avenue and 1000 West. This section is laterally unstable and will require channel creconstrction and floodplain reconnection and enhancements to improve habitat conditions (i.e., aquatic, terrestrial, and riparian habitats). Logan City has completed a design for this section of the river as part of the Cache County EWP program. However, this design was heavily biased toward flood mitigation goals.. If funded, we will develop a new design with the broader objectives in mind, and a design team also focused on the enhancement and restoration of this section. Additionally, this section will allow us to focus on managing the invasive crack willow and siberian elms that have historically been predominant at this project location and transition to a community of narrowleaf cottonwood, box elders, river birch, water birch, peach leaf willow, native choke cherry, golden currents, red ozier dogwoods, coyote willows, and other native species that will be identified and recommended by resource professionals on the Task Force.

All work along the Logan River is either on City property or we have already obtained access and maintenance agreements with the property owners.

9. Describe your experience in implementing projects of similar scope and magnitude:

Logan City's Public Works Department has managed over $30 Million in construction annually for the last three years. Individual projects typically last multiple years and typically involve numerous agency partners. The strength of Logan City is in its ability to manage and implement projects from planning through post construction maintenance.

By incorporating the Utah Division of Wildlife Resources and other agencies and organizations onto the Task Force and the oversight of this project, the team is strengthened by those who have participated and completed some of the largest river restoration projects in Utah including the Provo, Ogden, Blacksmith and Weber Rivers to name a few.

10. Describe how ongoing maintenance of the project will be funded and carried out:

Logan City will prepare an annual O&M plan for the Logan River under the direction of the Task Force. Vegetative maintenance and management will be directed by the Task Force, but will be completed by various departments within Logan City as deemed appropriate including the City Forester, Parks and Recreation Department, and Public Works Department.

11. List consultants or agency partners that have participated in project development (below):

Each of the following are members of the Logan River Task Force being established by Logan City, which will provide continued guidance throughout the development, implementation, monitoring and maintenance of this project.

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Signature Craig Petersen Date: May 5, 2014

Applicant: Mayor, Logan City